



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

## Design workshops and the development of UNAgora

Coto Chotto, Mayela; Dirckinck-Holmfeld, Lone

*Published in:*

Proceedings of the Eighth Danish Human-Computer Interaction Research Symposium, 20th November 2008

*Publication date:*  
2008

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*

Coto Chotto, M., & Dirckinck-Holmfeld, L. (2008). Design workshops and the development of UNAgora. In J. J. Jensen, K. L. Jensen, A. M. Kanstrup, L. B. Larsen, T. Nyvang, & J. Stage (Eds.), *Proceedings of the Eighth Danish Human-Computer Interaction Research Symposium, 20th November 2008* Aalborg Universitet.

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

### Take down policy

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

# Design workshops and the development of UNAgora

**Mayela Coto**

Universidad Nacional, Costa Rica  
e-Learning Lab, Center for User-driven  
Innovation, Learning and Design, Aalborg  
University, Denmark  
+45 9940 7405  
mayelacoto@hum.aau.dk

**Lone Dirckinck-Holmfeld**

e-Learning Lab, Center for User-driven  
Innovation, Learning and Design,  
Aalborg University, Denmark  
+45 9940 9020  
lone@hum.aau.dk

## ABSTRACT

In this paper, we describe a group of workshops that were developed with the goal to establish a meaningful dialogue among university teachers and researchers. This process of mutual reflection enabled a deeper understanding of teacher's experiences, feelings, achievements and difficulties lived by them during the eight months of their participation in the community UNAgora. Furthermore, the techniques applied in the workshops and the long term engagement of the participants in the learning environment supported a broad negotiation of meanings and contributed to understand the strengths and weaknesses of the design of UNAgora.

## Keywords

Communities of practice, teacher professional development, higher education, participatory design, workshops

## INTRODUCTION

The workshops described in this paper are part of a PhD project which overall aim is to foster an innovation in teaching practice of university teachers, through the use of innovative pedagogical approaches and information and communication technology to enhance learning. The project is based on communities of practice as a driving force to innovate educational practices [1] and takes place in the Universidad Nacional in Costa Rica (UNA).

The research is informed by a socio cultural perspective on human learning and development [9], where learning is regarded as a social process. It draws on the relation between the concepts of communities of practice, information and communication technology, problem oriented project pedagogy and teacher professional development. The term community of practice comes from theories based on the idea of learning as social participation.

It refers to the process of social learning that occurs when people who have a common interest collaborate over an extended period to share ideas, values, beliefs, languages, and ways of doing things [10].

Communities of practice have the potential to transform and improve teaching practice, providing teachers opportunities to learn, share and reflect on aspects related to their daily tasks [8]. Additionally the participation in these social spaces and the use of technologies in the communication and learning processes motivate teachers to learn new norms, values and practices [2].

Twenty university teachers are participating in the project. They come from five geographically distributed campuses; have diverse fields of knowledge and diverse approaches to teaching and learning as result of their own professional experiences and context. During eight months (March to October 2008) teachers have been participating in collaborative activities that help them to know each other, to develop trust and to improve their pedagogical and technical knowledge [3]. The learning environment has being designed as a framework for flexible and blended learning, regarding teachers as the main agents of their professional development, supported by an environment rich in challenges and interactions around the philosophy and methodologies of problem and project based learning [4, 5].

Given the geographic location of teachers, the community of practice (UNAgora) has a strong online component. As center of "online meeting" a space was created under the Moodle platform (Modular Object-Oriented Dynamic Learning Environment). However, in order to create an atmosphere of confidence among teachers the design considered six face-to-face meetings. Two of them are "global" meetings involving all the participant teachers and the other four meetings are localized workshop carried out in each campus. The workshops discussed in this paper took place in the last settings.

The main aim of the workshops was to reflect with participant teachers about their experiences as members of the community UNAgora during the period from March to September 2008. In a previous analysis of teacher's

experience based mainly in the produced online dialogue we found it important to address four themes: community formation, identity trajectory, the experiences of the innovation and the design process. The analysis of these topics with teachers begins a process of mutual reflection and self-designs in the community. The four workshops have duration of about three hours and were totally audio recorded and partially video recorded.

### Workshop#1: Community formation

The purpose of this workshop was to reflect and negotiate with the participants about the concepts and characteristics of communities of practice and to discover how well or not these concepts are present in UNAgora.

Two teachers and two researchers participated in the workshop. After a brief introduction we asked the participants to write in a card the main features of their teaching culture and then build a metaphor of their experience in UNAgora using Lego bricks. Through the use of modeling, the Lego bricks can take on meanings and can embody abstract concepts, thus concretizing formal elements that can otherwise be difficult to comprehend [7].

Teachers worked together building diverse components during 20 minutes and later on they explained the diverse elements present in their representation. In order to relate their metaphor of UNAgora, the concept of community of practice and teachers' culture, the researchers introduced the main elements of a Community of practice: domain, community and practice [10] and asked the teachers to identify these concepts in their representation (Figure 1).



Figure 1. The metaphor of UNAgora

This process allowed teachers negotiate among them different meanings and to discuss about the culture of sharing, collaborative learning, feelings of belonging and modes of identification as well as diverse types of learning obtained in the community, the innovation process, the

influence of the technology and the role of the community in their motivation to innovate their practice.

### Workshop #2: Identity trajectory

Our goal in this workshop was to discuss with teachers their learning trajectory in UNAgora and its influence in their teacher identity. Three teachers and two researchers were the participants in this workshop.

As an initial motivation and source of inspiration we started the workshop listen a short story. Then, we asked teachers to make a drawing representing their learning trajectory in the community. They used papers, pencils, stickers and picture cards. Also we bring a list of words (aptitude, attitude, identity, participation, collaboration, language, responsibility, change, values, feelings, expectations, difficulties,...) that teachers can consider when construct their story.

Teachers worked individually during 30 minutes in this process and later on they share with the rest of participants their stories. With this activity of story making and story telling, teachers place themselves in a position to make sense of their experience considering cultural, social, technological and personal aspects. We used their stories to talk about changes in identity, adoption of new language, empowerment to transform teaching practice and learning and development of new competences.



Figure 2. A learning story

### Workshop #3: Experiences about the innovation

As part of their participation in UNAgora teachers have to design, implement and evaluate an innovation in their classrooms. These innovations are mainly related with the introduction of information and communication technology in the learning process. The aim of this workshop was to

explore with teachers their experience as well as student's response.

Six teachers and two researchers participated in this workshop, and it consisted of two activities. First, each teacher designed a pair of glasses that represent their different perspectives of understanding their innovation process. As second activity, we asked them to tell their experience through drawings using the following questions as a guide:

- What do I want to change?
- What I am doing?
- What impact it has for me as teacher?
- What is the students' response?
- What would I like to continue doing?

Teachers worked during 20 minutes in the activity and then they shared with the rest of participant their experience. With this dialogue we were able to understand in a deeper way the scope of the innovation, teacher and students perceptions about it, the social relationships among teachers and the impact of the community in the innovation process.

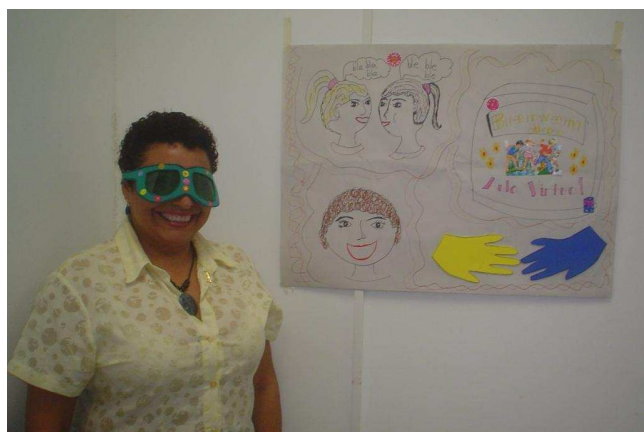


Figure 3. An innovation experience

#### Workshop #4: Design process

Three teachers and one researcher participated in this workshop. The main purpose was to evaluate the design of UNAgora. We asked teachers to consider themselves as designers and use their experience of seven months as members of UNAgora to design a community for the Sede Brunca. This campus is constituted by two sub-campus with 200 km of distance between them. In the design they should consider:

- Purpose of the community
- Teacher's culture
- Different types of roles
- Structures of participation (tasks, spaces, organization)
- Social relationships

- Collaborative work
- Learning agenda
- Technological platform

Teachers worked together during 60 minutes in the activity. This process allowed them negotiate different meanings about issues as the desired profile of the participants, selection process, online and face-to-face communication, strategies to foster participation, institutional support, group work, integration of new-comers, role of the old-comers and distribution of leading and supporting roles. In addition, the workshop opened an important dialogue among teachers and researcher in order to develop a growing strategy for the community.



Figure 4. The outcome of design

#### FINDINGS

In this paper, we have described four different workshops used as a way to construct knowledge among university teachers and researchers. We are just in the middle of analyzing the outcome from the workshops. However, our preliminary findings supports that the different process of collaborative construction and dialogue had enabled for teachers and researchers a concrete and deeper understanding of teachers' experiences, feelings, achievements and difficulties lived by them during the eight months of their participation in UNAgora .

The techniques applied in the workshops and the participants long term engagement in the learning environment of UNAgora supported a broad negotiation of meanings and contributed to understand the strengths and weaknesses of the design of UNAgora. Furthermore, the workshops have contributed to visualize a strategy for the growing of the community.

The feedback we have received from the teachers who participated in the workshops, have been very positive. The materials and diverse techniques used in the workshops (lego bricks, story telling, drawings) have stimulated an innovative and productive dialogue.

## PLANS FOR FUTURE RESEARCH

Next step is to analyze the workshops. We are going to make a hermeneutic reading of the interactions, dialogues and products in the workshop [6] in order to identify tensions and to inform the second design circle of the community UNAgora.

## ACKNOWLEDGMENTS

We would like to thank Heilyn Camacho for providing helpful ideas in the design and implementation of the workshops.

## REFERENCES

1. Barab, S., Klin, R. and Gray, J. Introduction: Designing for Virtual Communities in the Service of Learning. in Barab, S., Klin, R. and Gray, J. eds. *Designing for Virtual Communities in the Service of Learning*, MA: Cambridge University Press., 2004.
2. Coto, M. and Dirckinck-Holmfeld, L. Diseño para un aprendizaje significativo. *Teoría de la Educación. Educación y Cultura en la Sociedad de la Información*. <http://www.usal.es/~teoriaeducacion>, 8 (3).
3. Coto, M. and Dirckinck-Holmfeld, L. Facilitating Communities of Practice in Teacher Professional Development. in *Proceedings of the 6th International Conference on Networked Learning*, Lancaster University.
4. Dirckinck-Holmfeld, L. Designing Virtual Learning Environments Based on Problem Oriented Project Pedagogy. in Dirckinck-Holmfeld, L. and Fibiger, B. eds. *Learning in Virtual Environments*, Samfundslitteratur Press, Frederiksberg C, 2002, 31-54.
5. Kolmos, A., Fink, F. and Krogh, L. The Aalborg Model - Problem-based and Project-Organized Learning. in Kolmos, A., Fink, F. and Krogh, L. eds. *The Aalborg PBL model - Progress, Diversity and Challenges*, Aalborg University Press, Aalborg, 2004, 9-18.
6. Kvale, S. and Brinkmann, S. *InterViews: learning the craft of qualitative research interviewing*. Sage Publications, Thousand Oaks, 2008.
7. Lego Group. The Science of LEGO® Serious Play, [www.rasmussen-and-associates.com](http://www.rasmussen-and-associates.com), 2002.
8. Schlager, M.S. and Fusco, J. Teacher professional development, technology, and communities of practice: Are we putting the cart before the horse? in Barab, S., Klin, R. and Gray, J. eds. *Designing for Virtual Communities in the Service of Learning*, Cambridge University Press, Cambridge MA, 2004.
9. Vygotsky, L.S. *Mind in Society: the Development of Higher Psychological Processes*. Harvard University Press, Cambridge, 1978.
10. Wenger, E. *Communities of practice: learning, meaning, and identity*. Cambridge University Press, Cambridge, U.K.; New York, N.Y., 1998.